Different kinds of birds varied very greatly in number and type of parasites sheltered, and forms common in the one would be entirely absent or rare in the other. Full results of the examinations are given in a series of tables which show the number, condition, location, and name of the parasites collected and the date, locality, collector, and name of the host. The second half of the paper is devoted to an anatomical description and discussion of some of the less known cestodes found. The descriptions are full and contain many new points which are well illustrated on the plates. One new species, *Hymenolepis tetraonis*, was discovered in the quail, in which it is apparently very common. H. B. W.

Revision of the Ticks. — Of this work by Neumann,[1] a third part has just appeared. It covers the tribe of the Ixodæ, including the eyeless genera Ixodes, Hæmalastor, and Aponomma, and the genera Hyalomma and Amblyomma which possess eyes. Analytical keys for each genus, based on the characters of the male, of the female, and of the nymph, and full bibliographic references make the work a mine of information. Inasmuch as the ticks from the collection of the Bureau of Animal Industry were placed in the hands of the author for this revision, it has a peculiar value for American students; this usefulness is greatly enhanced by the full references given under geographical distribution to the individual states of the Union from which the specimens have been collected. With delicate courtesy the names of new species taken from labels written by the late George Marx are used and the species credited to that author; many of his drawings are also incorporated in the article, although for the text Professor Neumann is alone responsible. The most important change in the nomenclature of American forms is the suppression of *Ixodes unipunctata* Packard, the Lone Star Tick, as synonymous with *Amblyomma americanum* Koch. The illustrations of the revision are good, the text clear and concise, and the work is evidently carefully done, making it altogether the most important contribution in this group since the monograph of Koch. A fourth part to include additions, corrections, and general considerations of a taxonomic character to conclude the work will appear soon. H. B. W.

The Coccidæ of Brazil. — As recently as 1897 Dr. H. von Ihering catalogued the Coccidæ of Brazil, but he was able to enumerate

[1] Revision de la famille des ixodidés, *Mém. Soc. Zool. France*, tome xii (Paris, 1899), pp. 107–294, 63 figs.

only twenty-one species. Mr. Adolph Hempel has since that time been actively engaged in their study, and as a result he has published a work entitled "As Coccidas Brazileiras," in which he describes no less than 131 species as occurring in Brazil. This work, which was received by the present writer on Sept. 26, 1900, appears in Vol. IV of the *Revista do Museu Paulista*, and is, unfortunately, in Portuguese. By reason of its place of publication and the language in which it is written, it may escape the attention of some coccidologists, but it is in reality one of the most important contributions to the study ever produced.

The new genera described are Cryptokermes, Stigmacoccus, Apiococcus, Tectococcus, Tectopulvinaria, Pseudischnaspis, and Diaspidistis. Stigmacoccus, though placed in the Coccinæ, is doubtless a Monophlebine, and singularly enough, it appears to be identical with Perissopneumon, Newstead, described from India in *Entomologists' Monthly Magazine*, November, 1900. The simultaneous discovery on opposite sides of the world of this striking and distinct type is remarkable. Pseudischnaspis is an offshoot from Chrysomphalus, and will include, besides the Brazilian species, *P. longissimus* (Ckll.) and *P. bowreyi* (Ckll.), hitherto referred to Chrysomphalus.

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Notes. — The development of the common tubularian, *Parypha crocea*, has been worked over by C. M. Allen (*Biol. Bull.*, Vol. I, p. 291). Each sporosac is an outgrowth of the body wall of the polyp, and since it shows evidence of four radial canals, it must be regarded as a much reduced medusoid. The genital cells, both male and female, are derived from the ectoderm of the medusoid. The egg grows by absorbing adjacent cells. Its nucleus is said to be absorbed at an early stage and is later re-formed from the scattered fragments. Segmentation is very irregular and is often outrun by the nuclear divisions. The ectoderm and entoderm are differentiated by delamination. The embryo escapes as an actinula with both basal and buccal tentacles.

The segmentation of that portion of the neural tube which forms the brain in teleosts has been studied by Charles Hill (*Zool. Jahrb.*, Bd. XIII). The region destined for the forebrain is represented by three segments, that for the midbrain by two. These segments early disappear and are replaced by secondary expansions which have been mistaken for segments. The segments of these two portions of the brain are serially homologous with those of the posterior